

# PERAC

COMMONWEALTH OF MASSACHUSETTS | PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION

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MEMORANDUM FOR THE BOARD

TO: Shrewsbury Retirement Board

FROM: Joseph E. Connarton, Executive Director

RE: Approval of Funding Schedule

DATE: November 13, 2017

This Commission is hereby furnishing you with approval of the revised funding schedule the Board recently adopted (copy enclosed). The schedule is effective in FY18 (since the amount under the prior schedule was maintained in FY18) and, at this time, is approved only through FY20. Our understanding is that another valuation will be performed as of January 1, 2018. We will wait for the results of that valuation before approving an amount to be funded beyond FY20.

The System is approaching fully funded status (100% funded) in the next few years. When a system becomes fully funded, there are still annual normal cost payments (for benefits being accrued in the current year by active members). But attaining fully funded status is no guarantee of maintaining that status. Actuarial and investment losses (reflecting experience worse than anticipated), changes in plan provisions, and/or assumption changes can cause a once fully funded plan to again have unfunded liabilities.

The proposed schedule shows a significant decrease in funding level in FY21 as the last payment of the amortization of the unfunded actuarial liability is made. The FY22 amount reflects another significant reduction as it reflects only normal cost. But as outlined above, an actuarial loss or changes in plan assumptions in the 2018 actuarial valuation (discussed in further detail below) could significantly alter the expectation of reaching full funding in FY21. For example, the current schedule based on the January 1, 2016 actuarial valuation had an expectation of reaching full funding in FY20, one year earlier than the proposed schedule. The FY21 appropriation under that schedule was about \$1.95 million less than that of the schedule just adopted. An actuarial loss in 2016 contributed to extending the amortization of the unfunded liability.

As a budgetary matter, we prefer a more gradual approach to reducing appropriation levels as a system nears, and then reaches, full funding. This is the reason we are only approving the proposed schedule through FY20. Past experience of several systems that attained full funding has shown us that reducing the appropriation to the level of only normal cost (or less) could require significant increases in funding if the system does not maintain its full funding status. We are available to discuss this issue and our recommendations further.



November 16, 2017

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In the 2016 valuation, the Board adopted a fully generational mortality assumption based on a recent experience study performed by your actuary. Although we have recommended adopting a fully generational mortality assumption for several years, the assumption we use for other local systems is based on our analysis of State retirees and reflects longer life expectancy than the assumption you adopted. The valuation also reflects the adoption of other demographic assumptions based on the experience study. We have not performed a recent experience analysis for local systems to compare our findings with the results of your actuary's study, although we plan to complete a study of retiree mortality for local systems over the next year. The revised assumptions are less conservative than the current standard PERAC assumption set, which we continue to believe is reasonable. We note that page 3 of the valuation shows a loss of \$4.4 million for inactive mortality and data adjustments reflecting longer life expectancy than assumed.

The valuation uses a salary increase assumption of 3.5%. Only about 10 systems use an assumption of 3.5% or less. We expect that over the longer term, this assumption will need to be increased (and/or the investment return assumption further decreased) which will increase plan liabilities. We note that page 3 of the valuation shows a loss of \$935,000 for actual salary increases being greater than expected.

Aside from the potential impact of plan provision or assumption changes, net losses with respect to any of these assumptions in the 2018 or future valuations would increase plan liabilities, extend the period until reaching full funding, and require larger future appropriations than the amounts shown on the attached schedule.

We are available to discuss these issues further. If you have any questions, please contact PERAC's Actuary, Jim Lamenzo, at (617) 666-4446, extension 921.

JEC/jrl

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Enc.

## Appropriation Forecast

Fiscal			Employer	Amortization	Employer	Employer	
Year		Employee	Normal Cost	Payments	Total Cost	Total Cost	Funded
Ending	Payroll*	Contribution	with Interest	with Interest	with Interest	% of Payroll	Ratio %**
2018	\$24,460,547	\$2,139,645	\$537,690	\$5,714,594	\$6,252,284	25.6	87.2
2019	\$25,438,969	\$2,245,497	\$537,866	\$5,755,331	\$6,293,197	24.7	90.4
2020	\$26,456,528	\$2,356,394	\$537,195	\$5,765,897	\$6,303,092	23.8	94.4
2021	\$27,514,789	\$2,472,570	\$535,611	\$2,022,205	\$2,557,816	9.3	98.6
2022	\$28,615,380	\$2,594,270	\$533,040	\$0	\$533,040	1.9	100.0
2023	\$29,759,996	\$2,721,749	\$529,407	\$0	\$529,407	1.8	100.0
2024	\$30,950,395	\$2,855,277	\$524,630	\$0	\$524,630	1.7	100.0
2025	\$32,188,411	\$2,995,131	\$518,624	\$0	\$518,624	1.6	100.0
2026	\$33,475,948	\$3,141,606	\$511,298	\$0	\$511,298	1.5	100.0
2027	\$34,814,985	\$3,295,006	\$502,556	\$0	\$502,556	1.4	100.0
2028	\$36,207,585	\$3,455,651	\$492,296	\$0	\$492,296	1.4	100.0
2029	\$37,655,888	\$3,623,877	\$480,412	\$0	\$480,412	1.3	100.0
2030	\$39,162,124	\$3,800,031	\$466,789	\$0	\$466,789	1.2	100.0
2031	\$40,728,609	\$3,984,479	\$451,308	\$0	\$451,308	1.1	100.0
2032	\$42,357,753	\$4,177,604	\$433,842	\$0	\$433,842	1.0	100.0
2033	\$44,052,063	\$4,379,803	\$414,256	\$0	\$414,256	0.9	100.0
2034	\$45,814,146	\$4,591,493	\$392,409	\$0	\$392,409	0.9	100.0
2035	\$47,646,712	\$4,813,112	\$368,152	\$0	\$368,152	0.8	100.0
2036	\$49,552,580	\$5,045,113	\$341,326	\$0	\$341,326	0.7	100.0
2037	\$51,534,683	\$5,287,974	\$311,765	\$0	\$311,765	0.6	100.0
2038	\$53,596,071	\$5,542,191	\$279,293	\$0	\$279,293	0.5	100.0
2039	\$55,739,913	\$5,808,285	\$243,724	\$0	\$243,724	0.4	100.0
2040	\$57,969,510	\$6,086,799	\$204,864	\$0	\$204,864	0.4	100.0
2041	\$60,288,290	\$6,330,270	\$213,058	\$0	\$213,058	0.4	100.0
2042	\$62,699,822	\$6,583,481	\$221,580	\$0	\$221,580	0.4	100.0
2043	\$65,207,815	\$6,846,821	\$230,444	\$0	\$230,444	0.4	100.0
2044	\$67,816,127	\$7,120,693	\$239,661	\$0	\$239,661	0.4	100.0
2045	\$70,528,773	\$7,405,521	\$249,248	\$0	\$249,248	0.4	100.0
2046	\$73,349,923	\$7,701,742	\$259,218	\$0	\$259,218	0.4	100.0
2047	\$76,283,920	\$8,009,812	\$269,587	\$0	\$269,587	0.4	100.0
2048	\$79,335,277	\$8,330,204	\$280,370	\$0	\$280,370	0.4	100.0
2049	\$82,508,688	\$8,663,412	\$291,585	\$0	\$291,585	0.4	100.0

\* Calendar basis

\*\* Beginning of Fiscal Year